Amendment of the Claims

Please withdraw claims 6, 11-12, and 14-29. Please cancel claim 5 and amend claims 9-10.

1. (Original) A magnetic random access memory device comprising:

a plurality of magnetic memory elements;

a sense line coupled to the plurality of magnetic memory elements for sensing a magnetic orientation of at least one of the plurality of magnetic memory elements wherein the sense line includes a first via and a second via; and

wherein the sense line is utilized to thermally assist in switching a magnetic orientation of at least one of the plurality of magnetic memory elements.

2. (Original) The device of claim 1 wherein each of the plurality of magnetic memory elements comprises a spin dependent tunnel junctions.

3. (Original) The device of claim 1 wherein each of the plurality of magnetic memory elements comprises a giant magnetoresistive device.

4. (Original) The device of claim 1 wherein the sense line comprises semiconductor material.

5. (Cancelled).

6. (Withdrawn) The device of claim 1 wherein each of the plurality of magnetic memory elements includes a free layer and switching a magnetic orientation of at least one of the plurality of magnetic memory elements comprises switching a magnetic orientation of the free layer.

7. (Original) The device of claim 1 further comprising: a current source coupled to the sense line wherein utilizing the sense line to thermally assist in switching a magnetic orientation of at least one of the plurality of magnetic memory elements further comprises utilizing the current source to provide a current from the first via to the second

via wherein the current heats at least one of the plurality of magnetic memory elements.

8. (Original) The device of claim 4 wherein the semiconductor material comprises at least one of Pt, SiC, Si or C material.

9. (Currently Amended) The device of claim [[5]] 7 ~~wherein the at least one write conductor~~ further comprises two write conductors for providing orthogonal magnetic fields wherein the two write conductors are utilized to switch the magnetic orientation of at least one of the plurality of magnetic memory elements and one of the write conductors is thermally isolated from the sense line .

10. (Currently Amended) The device of claim [[5]] 7 ~~wherein the at least one write conductor~~ further comprises only one write conductor wherein the only one write conductor is utilized to switch the magnetic orientation of at least one of the plurality of magnetic memory elements.

11. (Withdrawn) The device of claim 6 wherein the sense line is above the free layer.

12. (Withdrawn) The device of claim 6 wherein the sense line is below the free layer.

13. (Original) The device 10 wherein the only one write conductor is positioned orthogonal to the sense line.

14. (Withdrawn) A method of switching a magnetic orientation of at least one of a plurality of magnetic memory elements in a magnetic random access device comprising: coupling a sense line to the at least one of the plurality of magnetic memory elements wherein the sense line includes a first via and a second via; and utilizing the sense line to thermally assist in switching a magnetic orientation of at least one of the plurality of magnetic memory elements.

15. (Withdrawn) The method of claim 14 wherein each of the plurality of magnetic memory elements comprises a spin dependent tunneling junction.

16. (Withdrawn) The method of claim 14 wherein each of the plurality of magnetic memory elements comprises a giant magnetoresistive device.

17. (Withdrawn) The method of claim 14 wherein the sense line comprises a semiconductor material.

18. (Withdrawn) The method of claim 14 wherein each of the plurality of magnetic memory elements includes a free layer and switching a magnetic orientation of at least one of the plurality of magnetic memory elements comprises switching a magnetic orientation of the free layer.

19. (Withdrawn) The method of claim 14 wherein utilizing the sense line to thermally assist in switching a magnetic orientation of at least one of the plurality of magnetic memory elements further comprising: coupling a current source to the sense line; and utilizing the sense line to heat at least one of the plurality of magnetic memory elements.

20. (Withdrawn) The method of claim 14 wherein each of the plurality of magnetic memory elements further comprises at least one write conductor.

21. (Withdrawn) The method of claim 17 wherein the semiconductor material comprises at least one of Pt, SiC, Si or C material.

22. (Withdrawn) The method of claim 18 wherein the sense line is above the free layer.

23. (Withdrawn) The method of claim 18 wherein the sense line is below the free layer.

24. (Withdrawn) The method of claim 19 wherein utilizing the sense line to heat at least one of the plurality of magnetic memory elements further comprises: utilizing the current source to provide a current from the first via to the second via wherein the current heats at least one of the plurality of magnetic memory elements.

25. (Withdrawn) The method of claim 20 wherein the at least one write conductor comprises two write conductors wherein the two write conductors are utilized to switch the magnetic orientation of the magnetic memory elements.

26. (Withdrawn) A computer system comprising: a processor; an interface module coupled to the processor; and a magnetic random access memory device coupled to the interface module wherein the magnetic random access memory device includes a plurality of magnetic tunnel junctions and a sense line coupled to the plurality of magnetic tunnel junctions wherein the sense line includes a first via and a second via, the sense line being capable of thermally assisting in switching a magnetic orientation of at least one of the plurality of magnetic tunnel junctions.

27. (Withdrawn) The computer system of claim 26 wherein the magnetic random access memory device further comprises: a current source coupled to the sense line wherein utilizing the sense line to thermally assist in switching a magnetic orientation of at least one of the plurality of magnetic tunnel junctions further comprises utilizing the current source to provide a current from the first via to the second via wherein the current heats at least one of the plurality of magnetic tunnel junctions.

28. (Withdrawn) The computer system of claim 27 wherein each of the plurality of magnetic tunnel junctions further comprises at least one write conductor.

29. (Withdrawn) The computer system of claim 28 wherein the at least one write conductor comprises two write conductors wherein the two write conductors are utilized to switch the magnetic orientation of the magnetic tunnel junctions.